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***Telic's*** core business is to provide Personnel,  
Equipment, and Facilities to support Weapons and  
Munitions Products



# Corporate By Laws

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In vicissitudes, **TELIC** Corporation shall:

- Excel in all academic and investment efforts.
- Display integrity and tact in each transaction and dealing.
- Invest within local and foreign markets as determined feasibly by study and risk assessment.
- Seek out and consider advice from those who excel in their respective field.
- Ensure corporate officers and investors are provided with the finest information and training available.
- Endeavor to seek out opportunities that have been over sighted.



# Certifications

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- 8(a)
  - Allows you to contract directly to *TELIC* without competition
  - Advantageous for small assignments
- SBA Certified Ammunition Manufacturer
- SDB (Small Disadvantaged Business)
- Hubzone Located
- Veteran & Minority Owned (Army & Marine Corps) & (American Indian)



# Background

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- Incorporated November 9, 1998
- Operated Tax Center
- Telic Corporation president was a member of the 40mm HVCC 5 man design team
- Historical Projects
  - Telic's Largest Present Project is design layout, construction, operation and maintenance of Chemical Weapons Demilitarization Facility to destroy VX Nerve Agent (Gas)
  - Design and build Grain Saws
  - Temporary Employee placement for Technical/Clerical Positions
  - Designed and Fabricated 155mm Crimp Machine



# Technical Capabilities

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- Prepare/Assist in writing Required Safety Related Test Plans for new warfare products in order to obtain approval by the appropriate Governing Service Safety Board
- Present/Assist in presenting the Required Safety Related Test Plans to Governing Service Safety Board
- Conduct/Assist actual Firing Tests
- Prepare/Assist in writing Final Test Reports on Approved Safety Test Firings
- Provide Selection of Ranges/Locations for required Test Firings



# Technical Capabilities (cont'd)

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- Technical Writing or Assistance as Required on
  - Ammunition
  - Munitions
  - Weapons/Guns
  - Complete Weapons Systems
- Facilities
- Manufacturing
- Products
- Utilize Pro/ENGINEER Software



# Ammunition, Munitions, Weapons/Guns and Complete Weapons Systems

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- Prepare/Assist in preparation of Required Safety Related Test Plans for all Military Service's to obtain approval on warfare products for service use by their Respective Safety Boards, For Example: Navy, Weapons Systems Explosive Safety Review Board (WSESRB)
  - Safety Firing Test Plans
  - Safety Environmental Test Plans
  - Safety Field Test Plans
  - Safety Proof Firing Test Plans



# Provide Selection of Test Firing Ranges/Locations

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- Ares, Inc.
  - Located at Port Clinton, Ohio
- New Mexico Tech
  - Located at Socorro, New Mexico
- Camp Atterbury
  - Located at Edinburgh, Indiana
- Camp Grayling
  - Located at Grayling, Michigan



# Technical Writing

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- Technical Documents
  - Writing/Updating Technical Manuals as required for:
    - Ammunition
    - Munitions
    - Weapons/Guns
    - Complete Weapons Systems
  - Assist in Writing/Updating Technical Manuals as required for:
    - Ammunition
    - Munitions
    - Weapons/Guns
    - Complete Weapons Systems



# Facilities

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- Corporate Headquarters  
Valparaiso, IN  
708-906-4671
- Ordnance-Ammunition  
Port Clinton, OH  
219-406-2164
- Equipment Manufacturing  
Rockville, IN  
219-405-8297
- Chemical Demil  
Newport, IN  
765-245-5267



# Manufacturing

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- Design and Fabricate Ammunition Production Equipment and Demilitarization Equipment
- Complete Machining Capabilities
  - Conventional and CNC
  - Laser Burning
  - Modern 8,000 Sq. Ft. Facility
- Certified Welding Capabilities
  - Mild steel, stainless, aluminum, alloy steel
    - MIG-TIG
    - Plasma Burning



# Manufacturing (cont'd)

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- Design/Engineering Services
  - R and D
  - Prototypes
  - Full Production
- Specialized Capabilities
  - Hydraulics
  - Pneumatics
  - Air Logics
  - Electrical Controls
    - Programmable Logic Controls (PLC)
    - Explosion Proof



# Products

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- Special Machinery and Equipment
  - Load and Pack
  - Demil
  - Automation/Transfer
  - Test
- Gun Mounts
  - MK 88 (25MM)
  - MK 98 (25MM)
  - MK 93 (.50 CAL)
  - MK 94 (.50 CAL)
  - MK 97

# Pro/ENGINEER



# Pro/Engineer Experience/Relationship

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- Experience with Pro/E since version 2 - 1990
- Influenced over 150 software enhancements
- Participate in specifications requirements development (as requested by PTC)
  - Windchill Product Configurator
  - Model and Drawing Programs (Process Automation)
  - Pro J/Link (Delta)
  - Pro/Report (Dynamic BOM)
  - Pro/Manufacture (N/C Sheetmetal and Turning)
- Provide demo's and consulting to potential PTC customers for enhancements

# Parametric Technology Corp.

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Others:

Alcoa John Deere

Majestic Fireplace

Marvin Windows Rolls Royce

Mitsubishi

Toshiba



# Pro/Engineer

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- Feature-based 3-D solid model
- Soft prototype
- Bills of materials, parameters, and features
- Drawings
- N/C graphics
- Contract specific automated configuration capabilities

# Pro/Engineer Deliverables

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- Feature-based 3-D solid model
  - Examples of features
    - Holes, cuts, slots, protrusions, assembly features, assembly components, etc.
  - Parametric configuration control of features (including assembly components)
    - Dimension assignment, suppression, component interchangeability, assembly constraints, etc.
  - Parameter definition
    - Material type, part number creation, cost, etc.

# Pro/Engineer Deliverables

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- Soft prototype (aiding in design, manufacturability, and tooling definition)
  - Engineering rule validation
  - Form, fit, and function validation
    - System generated interference checks
      - Global, part-pair, MMC (tolerance driven)
    - Visual interference checks
    - Component optionality validation
    - Mass property calculations (assembly and part level)
      - Weights, center of gravity, etc.

# Pro/Engineer Deliverables

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- Bills
  - Parametric, dynamic, used by down-stream systems
  - Types (Bills of):
    - Material (resident at assembly level)
      - Assembly optionality or interchangeable component driven
    - Parameters (resident at assembly and part level)
      - Parametric and derived during regeneration
    - Features (resident at assembly and part level)
      - Location dimensions, size dimensions, and suppression control

# Pro/Engineer Deliverables

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- Drawings
  - Programmable and parametric
    - View location and suppression
    - Dimension location and suppression
    - Parametric note location and suppression
  - Assembly
    - Dynamic BOM's (Pro/Report)
      - Optionality or interchangeable component driven





# Pro/Engineer Deliverables

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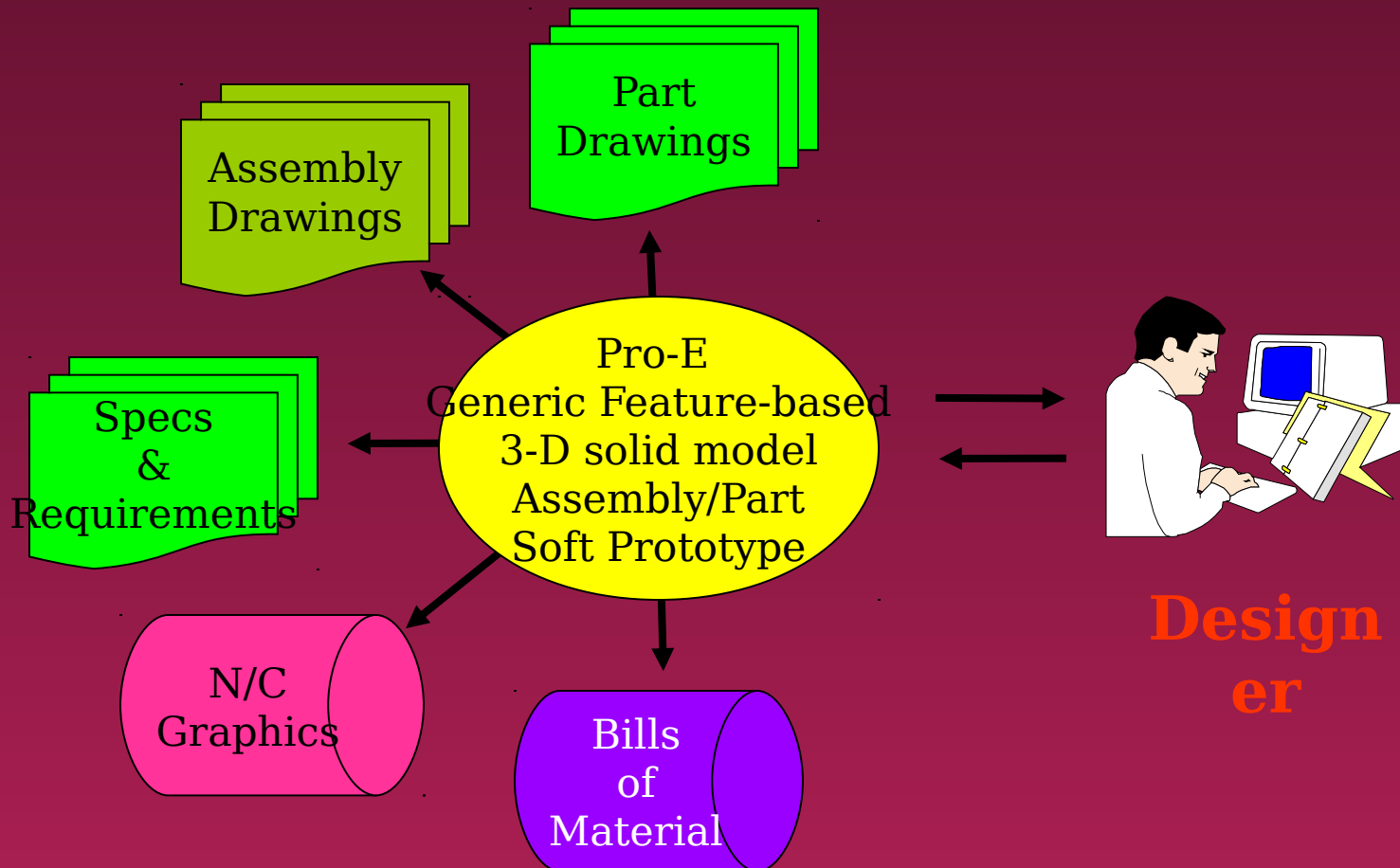
- N/C graphics
  - Use solid models to drive N/C equipment
  - Flattened sheetmetal components
    - Bend allowance definition (Y-factor) based on material, part radius, and tooling
    - As parameters change, flat patterns update
    - Parameter driven part markings for identification
  - Output in neutral file format
    - AutoCAD
    - .dxf
    - .iges
  - SLA

# Pro/Engineer Deliverables

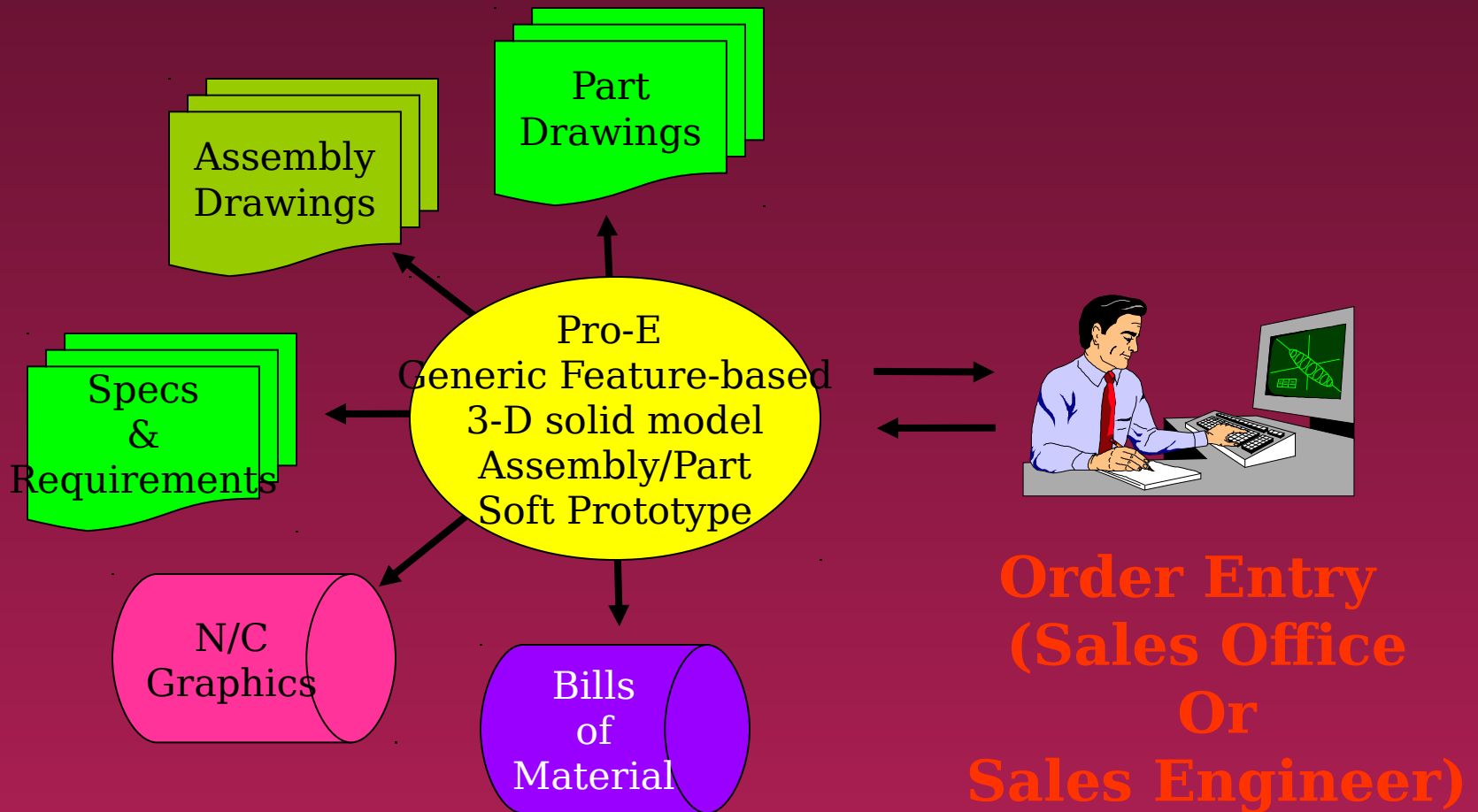
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- Contract specific automated configuration capabilities
  - Develop process to generate output already discussed
  - Driven from order entry (sales office or sales engineer)
  - Inputs
    - Question generated (parameter driven)

# Models, Drawings and Process Definition



# Process User



# Pro/Engineer Demo